

AMENDMENT TO THE CLAIMS:

1. (Currently Amended) An arrangement for transporting metallic work pieces, especially during a heat treatment process, comprising:  
a heat-insulated transport chamber to hold the work pieces;  
means for loading and unloading the work pieces; and  
a transporting gear for moving the transport chamber,  
wherein the transport chamber can be moved horizontally, is designed to be vacuum-tight, and can be evacuated of air to create a vacuum to protect the work pieces from environmental influences;

wherein the transport chamber contains a horizontal batch loading and unloading device, and

wherein the transport chamber is provided with a heating element for heating the treatment chamber, and

wherein the transport chamber is equipped with a removable thermal insulation made of steel.

2. (Previously Presented) The arrangement in accordance with claim 1, further comprising a vacuum pump for evacuating the air from the transport chamber.

3. (Canceled)

4. (Canceled)

5. (Previously Presented) The arrangement in accordance with claim 1, wherein the transport chamber is equipped with a hermetically sealable loading door, which may be actuated via a drive mechanism.

6. (Previously Presented) The arrangement in accordance with claim 5, wherein the transport chamber is equipped with a hermetically sealable connecting door.

7. (Previously Presented) The arrangement in accordance with claim 1, wherein the transport chamber and the transporting gear can be moved relative to one another.

8. (Previously Presented) The arrangement in accordance with claim 7, wherein the transport chamber is positioned on the transporting gear such that it can pivot horizontally or can move in a straight line in a horizontal and/or vertical direction.

9. (Previously Presented) The arrangement in accordance with claim 1, wherein the transporting gear can rotate in place.

10. (Previously Presented) The arrangement in accordance with claim 1, wherein the transporting gear is rail-mounted, or can be controlled freely via induction loops embedded in the base.

11. (Currently Amended) A system for heat treating metallic work pieces comprising:

at least two treatment chambers for the horizontal acceptance of batches, in which the work pieces can be heat treated; and

an arrangement for transporting metallic work pieces can be coupled to the treatment chamber via a transfer canal that can be evacuated of air, the arrangement includes:

a heat-insulated transport chamber to hold the work pieces;

means for loading and unloading the work pieces; and

a transporting gear for moving the transport chamber,

wherein the transport chamber can be moved horizontally, is designed to be vacuum-tight, and can be evacuated of air to create a vacuum to protect the work pieces from environmental influences;

wherein the transport chamber contains a horizontal batch loading and unloading device, and

wherein the transport chamber is provided with a heating element for heating the treatment chamber, and

wherein the transport chamber is equipped with a removable thermal insulation made of steel.

12. (Previously Presented) The system in accordance with claim 11, wherein the transfer canal is connected to the treatment chamber in a stationary position.

13. (Previously Presented) The system in accordance with claim 11, wherein the transfer canal can be evacuated separately.

14. (Previously Presented) The system in accordance with claim 11, wherein the transfer canal is equipped with a drive mechanism, via which a loading door of the transport chamber may be actuated.

15. (Previously Presented) The system in accordance with claim 11, wherein the treatment chamber is a vacuum furnace, an atmospheric furnace, or a cooling chamber.

16. (Currently Amended) A method of transporting metallic work pieces during a heat treatment process, in which the work pieces are transported within a heat-insulated, horizontally movable transport chamber, between at least two horizontally loaded treatment chambers, in which the work pieces may be heat treated, the method comprising:

evacuating the transport chamber, which is designed to be vacuum-tight, of air, wherein the transport chamber is provided with a heating element for heating the treatment chamber, and wherein the transport chamber is equipped with a removable thermal insulation made of steel;

creating a vacuum that will protect the work pieces from environmental influences;

transporting the work pieces within the vacuum from one treatment chamber to the next; and

holding the work pieces at the treatment temperature, without any significant drop in temperature.

17. (Previously Presented) The method in accordance with claim 16, further comprising coupling the transport chamber via a transfer canal to the appropriate treatment chamber.

18. (Previously Presented) The method in accordance with claim 17, further comprising evacuating the transfer canal separately.

19. (Previously Presented) The arrangement in accordance with claim 1, wherein the heating element is connected to an electrical power supply.

20. (Canceled)